

CLAIMS

What is claimed is:

1. A golf range system comprising:

5 a target, said target having a top surface and at least one golf ball receiver, said golf ball receiver configured to have a first opening at said top surface of said target and a second opening, said target further comprising a target reader/transmitter, said target reader/transmitter further comprising an entry portion, a guide portion, an exit portion, and where said second opening of said 10 golf ball receiver is configured to allow operable connection to said entry portion, a first RFID reader configured such that a golf ball, upon entering said entry portion, will follow said guide portion past said first RFID reader in a readable manner and then exit via said exit portion, a GPS receiver operably connected to said reader/transmitter such that data from said GPS receiver is transmittable to a 15 server, and where said target reader/transmitter is operable for communication with at least one server, said target being movable;

a second RFID reader configured to read golf ball RFID tags and extract golf ball IDs thereby and further configured to be in operable communications with at least one server;

20 a server operable for communication with said at least one target reader/transmitter and said second RFID reader and configured to make at least

one calculation regarding golf ball and player data using data received by said server from at least one of: said target reader/transmitter; or, said second RFID reader, said server further comprising a database;

said database configured to retrievably hold golf ball IDs in associated with one of: other golf ball IDs; or, at least one player ID, and further configured to hold data sent by said target reader/transmitter and said second RFID reader, and store said calculated golf ball and player data, in a manner retrievable by one of: a player ID; or, a golf ball ID.

2. The golf range system of claim 1 where said first RFID reader is configured such that its antenna coils are wrapped in a tubular manner around said central guide.

3. The golf ball range system of claim 1 where said second RFID reader is configured such that its antenna coils are wrapped in a tubular manner around a guide, said guide configured to enable a golf ball to pass through said tubular antenna coils.

4. The golf range system of claim 1 further comprising a sensor located near at least one tee-off area, said sensor configured to detect a golf ball that is one of: placed on the tee-off area; hit from the tee-off area; or, both placed on, and hit

from, the tee-off area; and is further configured to transmit data about said detected golf ball to a server.

5. The golf range system of claim 1 further comprising a plurality of servers,
 5 where said plurality of servers are in operable communication with each other, and where one of said plurality of servers further comprises a database, said database configured for player accounts, and further configured to hold one of: golf target data, golf ball ID data, detected golf ball data; or, golf target data and golf ball ID data and detected golf ball data in a manner associated with a player account

10 6. The golf range system of claim 1 further comprising a plurality of servers, where said plurality of servers are in operable communication with each other, and where one of said plurality of servers further comprises a database, said database configured for storing data in a manner retrievable using golf ball IDs, and further
 15 configured to hold one of: golf target data, a plurality of golf ball IDs, detected golf ball data; or, golf target data and golf ball ID data and detected golf ball data in a manner associated with a golf ball ID.

7. The golf range system of claim 1 where said at least one server is also
 20 configured to be a WWW server, enabled to allow logged in users to retrieve one of: personal golf game data; a plurality of player's of golf game data; or, both

personal and a plurality of player's golf game data.

8. A method of using a golf range system, the golf range system comprising:

(a) a target, said target having a top surface and at least one golf ball receiver,

5 said golf ball receiver configured to have a first opening at said top surface
of said target and a second opening, said target further comprising a target
reader/transmitter, said target reader/transmitter further comprising an entry
portion, a guide portion, and an exit portion, and where said second opening
10 of said golf ball receiver is configured to allow operable connection to said
entry portion, a first RFID reader configured such that a golf ball, upon
entering said entry portion, will follow said guide portion past said first
RFID reader in a readable manner and then exit via said exit portion, a GPS
15 receiver operably connected to said reader/transmitter such that data from
said GPS receiver is transmittable to a server, and where said target
reader/transmitter is operable for communication with at least one server,
and where said target is moveable;

(b) a range entry golf ball RFID reader configured to read golf ball RFID tags
and extract golf ball IDs thereby and further configured to be in operable
communications with at least one server;

20 (c) a server operable for communication with said at least one target
reader/transmitter and said second RFID reader and configured to calculate

golf ball and player data, said server further comprising a database;

(d) said database configured to retrievably hold golf ball IDs in associated with

one of: other golf ball IDs or at least one player ID, and further configured

to hold data sent by said target reader/transmitter and said RFID reader, and

5 store said calculated golf ball and player data, in a manner retrievable by

one of: a player ID or a golf ball ID,

the method comprising:

entering a golf range;

providing a set of golf balls having RFIDs therein, where said set of golf

10 balls comprises one or more golf balls;

using said range entry golf ball RFID reader, providing a set of golf ball IDs

corresponding to said set of golf balls in a one-to-one manner;

storing said set of golf ball IDs on said database;

associating said set of golf ball IDs with an account on said database;

15 hitting said golf balls from a tee-off area towards at least one target;

gathering data on any hits on any target;

sending said hit data to a server;

providing a person having access to said account data about said golf ball

hits and any other data collected pursuant to using said set of golf balls.

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9. The method of claim 8 where said providing a set of golf balls is a set of golf

purchased for play by a player at a range cashier's station.

10. The method of claim 8 where said providing a set of golf balls is a set of golf balls owned by a player, and brought to the range by said player.

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11. The method of claim 8 where said associating said set of golf ball IDs with an account further comprises associating said set of golf ball IDs with a specific player account.

10 12. The method of claim 8 where said associating said set of golf ball IDs with an account further comprises associating said set of golf ball IDs with an anonymous player account.

13. The method of claim 8 where said associating said set of golf ball IDs with an
15 account further comprises associating said set of golf ball IDs into a group, said group being accessible using any one of the golf ball IDs contained in the group.

14. The method of claim 8 where said gathering data on any hits on any target further comprises:

20 providing a plurality of targets;

recording data on any ball from said set of balls that reaches any target;

sending said gathered data to a server;
 gathering all sent data in said database;
 providing said data to any authorized user, player, or program running on
 said server.

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15. A method of charging players using a golf range system, the golf range system
 comprising:

(a) a target, said target having a top surface and at least one golf ball receiver,
 said golf ball receiver configured to have a first opening at said top surface
 of said target and a second opening, said target further comprising a target
 reader/transmitter, said target reader/transmitter further comprising an entry
 portion, a guide portion, and an exit portion, and where said second opening
 of said golf ball receiver is configured to allow operable connection to said
 entry portion, a first RFID reader configured such that a golf ball, upon
 entering said entry portion, will follow said guide portion past said first
 RFID reader in a readable manner and then exit via said exit portion, a GPS
 receiver operably connected to said reader/transmitter such that data from
 said GPS receiver is transmittable to a server, and where said target
 reader/transmitter is operable for communication with at least one server,
 and where said target is moveable;

(b) a range entry golf ball RFID reader configured to read golf ball RFID tags

and extract golf ball IDs thereby and further configured to be in operable communications with at least one server;

(c) a server operable for communication with said at least one target reader/transmitter and said second RFID reader and configured to calculate golf ball and player data, said server further comprising a database;

(d) said database configured to retrievably hold golf ball IDs in associated with one of: other golf ball IDs or at least one player ID, and further configured to hold data sent by said target reader/transmitter and said RFID reader, and store said calculated golf ball and player data, in a manner retrievable by one of: a player ID or a golf ball ID;

(e) a sensor located near at least one tee-off area, said sensor configured to detect a golf ball that is placed on the tee-off area and is further configured to transmit data about said detected golf ball to a server,

the method comprising:

reading a set of gold balls at said range entry golf ball RFID reader;
associating a player with said read set of golf balls;
allowing said player to go to a tee-off area;
recording in said database output from said sensor each time a golf ball is placed in said tee-off area;

totaling the number of golf balls said player places in said tee-off area in a periodic manner; and,

billing said player based on the number of golf balls that have been placed on the tee-off area.

16. The method of claim 15 where said associating a player with said read set of golf balls further comprises associating a player account with said read set of golf balls, and where said billing said player further comprises a periodic bill sent to said player if there is more than 0 totaled golf balls placed in a tee-off area by said player.

17. The method of claim 15 where said associating a player with said read set of golf balls further comprises associating an anonymous player account with said read set of golf balls, and where said billing said player further comprises presented said player with a bill based on the number of golf balls placed in the tee-off area before said player leaves the range.

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